# **IRDA-WELDER User Manual**

**Model: T862++** 



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#### **Features**

- ➤ Unlike Air Re-Work systems, The T-862++ uses an Infrared source and optics to target heat to individual components without dislodging other SMT parts by way of eddies air currents.
- ➤ Infrared soldering technology with independent exploration capabilities via three (3) focus lenses which are included with the package.
- ➤ Technician focused infrared heat is easy to target most component removal/replacement and re-work.
- ➤ The Workstation has a 120 X120mm a 650W controlled Pre-heating System.
- ➤ Infrared heat source bulbs are long-lived, in-expensive and easily replaced.
- Processor controlled set-point regulated temperatures with thermocouple feed-back.
- ➤ Integrated and adjustable Infrared (IR) eye protection.
- ➤ Can suitable for the entire component, especially Micro BGA component.
- ➤ The T-862++ system also contains a temperature controlled touch-up iron and stand.
- ➤ Extra soldering tools are not necessary to solder/unsolder and re-work Surface Mount Technology (SMT) components 15-35mm

in size.

> Training is illustrated in factory provided video.

# **Technical parameter**

Working Voltage	AC220V/50Hz AC110V/60Hz
Output power	800W
Infra-red lamp body temperature adjustable	100℃-350℃
Preheating dish temperature adjustable	60℃-200℃

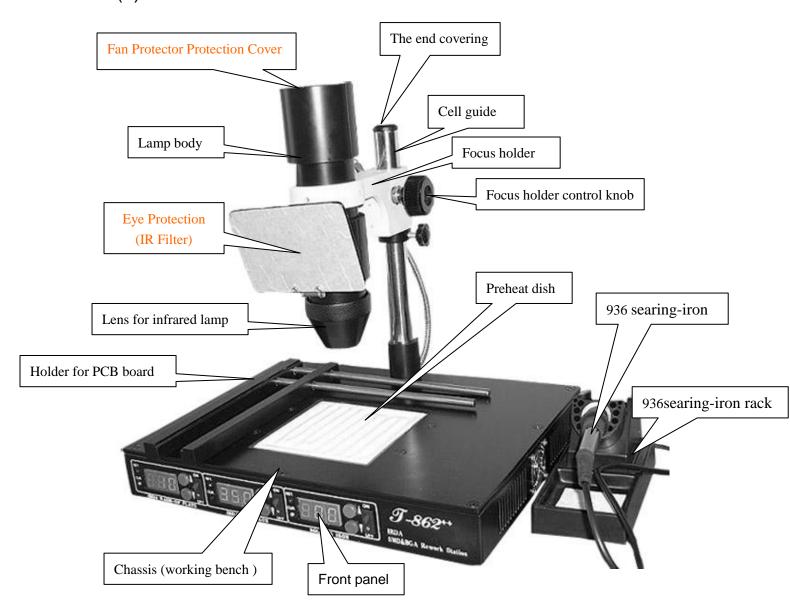
# Components

Description	Quantity	Illustration
T-862++ Chassis	1	
PCB Board holder	1	
936 Searing-iron	1	
936 searing-iron rack	1	
Lamp Body and Lens(D=28mm)	1	
Lens(D=38mm)	1	
Lens(D=48mm)	1	
Eye protection(IR Filter)	1	
Cell guide	1	
Focus holder	1	
Focus holder control knob	1	
Fasten nut for focus holder	1	
Steady ring	1	
Fasten nut for steady ring	1	
Power Cable (110VAC or 200VAC)	1	
5mm Fuse, 10A 250VAC (Spare)	1	
CD User Manual w/Video	1	

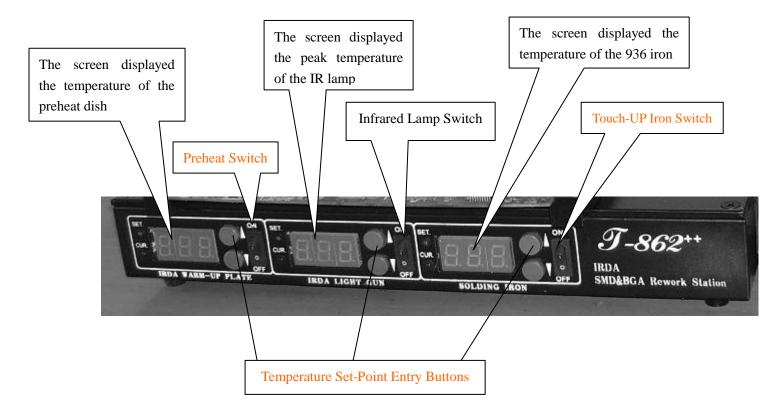


# T-862++ Illustrated explaining

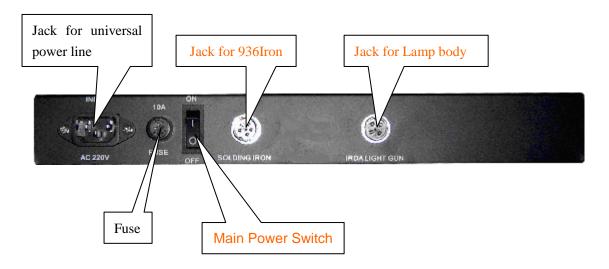
## (1)The whole machine



# (2)Front Panel

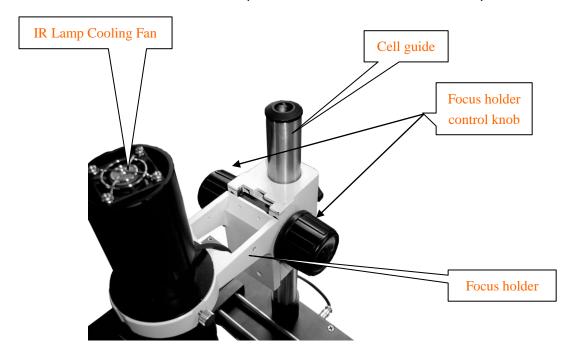


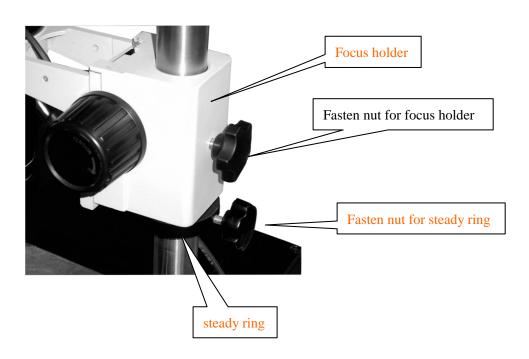
#### **Rear Panel**



# (3)Infrared Lamp

# (Focus holder and others)



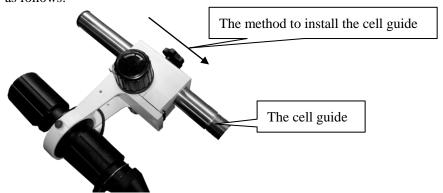


#### Infrared Work Station Unpacking and Assembly

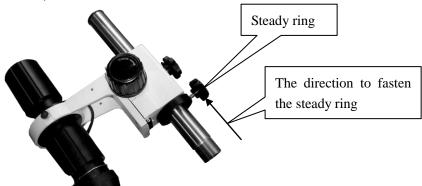
1.Unpack and remove the T-862++ two (2) major assemblies and minor components from the styrofoam packaging material and set aside.

**Note:** The Infrared Head, Body Mounting and Focus Assembly will be installed in the T-862++ chassis later.

2. Inventory all Items, confirm no parts are missing. If parts are missing call 0086 538 6138575 3. Install the cell guide. Loosen the "fasten nut of the focus holder" first, then install the cell guide as follows:

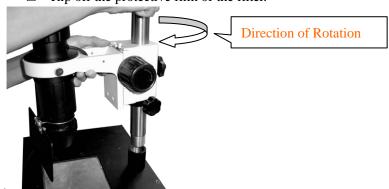


4.Install the steady ring. Loosen the "fasten nut for steady ring" first, installed the steady ring as follows, then fasten the nut.



#### 5. Assemble wholly.

- ☐ Relax the "fasten nut of focus holder"
- ☐ Install the "cell guide" on the relevant nut, screw the "cell guide" on the nut as follows.
- □ Rotation the "fasten nut of focus holder" to fix the "focus holder".
- $\Box$  Rip off the protective film of the filter.



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- 6. Connect the IR-Lamp body and the 936-Iron with the chassis.
  - $\ensuremath{\mbox{\Large 1}}$  Insert the pin into the relevant jack.
  - ②Rotate rightward to fix it.
- 7. Attach IR Eye protective filter with the supplied screw and nut.

# T-862++ Operation Infrared Lamp Body PC Board Support T-862++ chassis

1. Locate, choose and attach the appropriate lens:

The usable of the lenses diameter are 28mm, 38mm, 48mm.

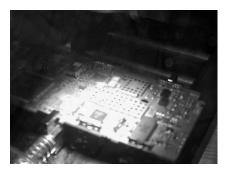
- (1)When the area of the chips is below 15mm\*15mm, please choose the IR-lamp temperature about 160-240°C, and choose the lens which D=28mm to avoid destroying other places, usually it will take you about 20-40seconds.
- (2)When the area of the chips is between 15mm\*15mm and 30mm\*30mm, please choose the IR-lamp temperature about 240-320℃, and choose the lens which D=38mm to avoid destroying other places, usually it will take you about 30-60seconds.
- (3)When the area of the chips is above 30mm\*30mm, please choose the IR-lamp temperature 350°C Attention: you should turn on the pre-heat dish first, and set-up the temperature about 150-200°C, wait 3-5minutes to allow the temperature steady on the set-up temperature), and choose the lens which D=48mmto avoid destroying other places, and keep the lamp body direct light. You should control the time carefully to avoid burning the chips.

## Warning:

The light system will shoot straightly. Please pay more attention to yourself control time to avoid burning out.

- 2. Open the machine
- (1) Check if the connection wire of the lamp body and the 936-Iron is ok.
- (2) Locate and attach the power cable to the rear of the re-work station
- (3) Confirm all front panel rocker switches are off.
- (4) Place the rear AC Power Switch in the ON Position.
- (5) Allow the T-862++ Power-On-Self-Test (POST) to complete.
- (6) Temperature set-points will display last value used.
- (7) Place the target PC Board on the slip-rack and orient to close proximity of estimated position of focused Infrared light,
- (8) Adjust the T-862++ Infrared light system height, allow 20-30mm from lens end to PC board target component.
- (9) Turn on the two switches. They control warm-up plate and light system.

- 3. PC Board Component Removal and Replacement.
- (1)Put the PCB board onto the holder
- (2) Turn on the switch of the pre-heat dish, and set-up the temperature
- (3)Turn on the switch of the IR-Lamp, Regulate the temperature (the temperature must be warm enough to allow the solder to be liquefied), focus the Infrared light on the chip to be removed.



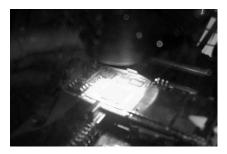
(4)Once the solder liquefied and melted, use tweezers to remove the chip.



- 4. Soldering a chip.
- (1) Clean the target pad with the brush



- (2) Then put the solder ball and a flat of solder flux on the target pad
- (3) Turn on the switch of the pre-heat dish, and set-up the temperature
- (4)Turn on the switch of the IR-Lamp, Regulate the temperature (the temperature must be warm enough to allow the solder to be liquefied), focus the Infrared light on the chip to be solder



(5) Wait to allow the Infrared lamp to heat the solder flux to work as the solder balls on the target chip pad reaches liquid temperature. Use tweezers or a vacuum device to place the chip target position. Once the solder liquefies, the chip will be sold automatically. After cooling the chip, pick up the PCB board, check if it is ok. If not, re-operate.



#### 5. The use of the 936 searing-iron

It can be used separately, But be sure it must be connect with the chassis.

If the component is too small, you needn't use the IR-lamp, the 936 searing-iron is enough.

Open the switch of the 936 searing-iron, set-up the temperature, then use it as you want.

#### Maintenance:

- ✓ At all times Insure the light body cooling fan is unobstructed and clean.
- Use a little machine oil. Lubricate the focus holder and cell guide to inhibit rusting, keep them ease to operate.

#### Warning!

The T-862++ System creates temperatures in excess of high degrees via Infrared Light. Wear appropriate eye protection or any device within the T-862++ when using it. After use, Do not cut the power immediately, confirm the light body is cool-to-touch, Turn off the power switch, then place the system in airiness & safety storage.

**Do NOT** use this system or any associated device in an environment conducive to fire or electrical overload.

**Disconnect** the AC Power Plug when not in use.

When using, it is of high temperature, Do not allow children or the un-trained to touch the T-862++.